



436708

REVERE COPPER AND BRASS

SITE ASSESSMENT

DETROIT, MICHIGAN

Prepared For:

**U.S. Environmental Protection Agency
Region V
230 South Dearborn Street
Chicago, Illinois**

CONTRACT NO. 68-01-7367

TAT-05-N-00046

TDD NO. 5-8709-08

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**WESTON-SPER
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Region V**

January, 1988

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1.0 SITE DESCRIPTION

Revere Copper and Brass (RCB), an abandoned copper bearing products manufacturer, is located at 5851 W. Jefferson Avenue, approximately 1 1/4 miles southwest of the Ambassador Bridge, in Wayne County, Detroit, Michigan (Figure 1). The RCB property is bordered to the north by W. Jefferson Avenue, to the east by the Misterski Public Lighting facility, to the south by the Detroit River, and to the west by Historic Fort Wayne (Figure 2). The terrain is generally flat with a gentle slope towards the Detroit River. The site is owned by the City of Detroit's Community Economic Development Department (CEDD) and is located in an urban residential and industrial area.

The site was suspected of having elevated levels of polychlorinated biphenyls (PCB) because of RCB's handling of scrap copper. The main building is located on the western edge of the property. In the midsection of the building, the roof has collapsed leaving a gap of approximately forty feet. The area adjacent to and east of the building is a zone of scattered demolition debris where extensions to the RCB building once stood. There is a large diked storage tank on the east edge of the demolition debris zone. Four empty offices and support buildings are located on the site. Also, throughout the site, there are considerable amounts of scattered solid waste such as automobiles, mattresses, and refuse.

2.0 SITE BACKGROUND AND HISTORY

RCB purchased the property and the associated buildings in the 1920's. The major operation at this facility was the melting of scrap and virgin copper into "cakes" which would then be fabricated into copper bearing products. Mike Durr of RCB reported that smelting activities were never performed at the site. The facility was closed and all equipment removed in 1985. The property was subsequently relinquished to the City of Detroit's CEDD. Representatives from CEDD stated that a number of firms have shown interest in purchasing the site. In September 1987, because of public concerns about RCB being a hazardous waste site, potentially contaminated with PCBs and asbestos, the U.S. Environmental Protection Agency (U.S. EPA) tasked the Technical Assistance Team (TAT) to perform a site assessment.

3.0 SITE INSPECTION

On September 17, 1987 TAT members Tim Ott, Ann Patchak, and Mike Turnbull conducted a site assessment at the RCB facility. Following a perimeter inspection, the TAT members entered the unrestricted RCB building to conduct air monitoring and document any potential environmental or human health threats. No readings of organic vapors, explosive atmosphere, or radiation above back-

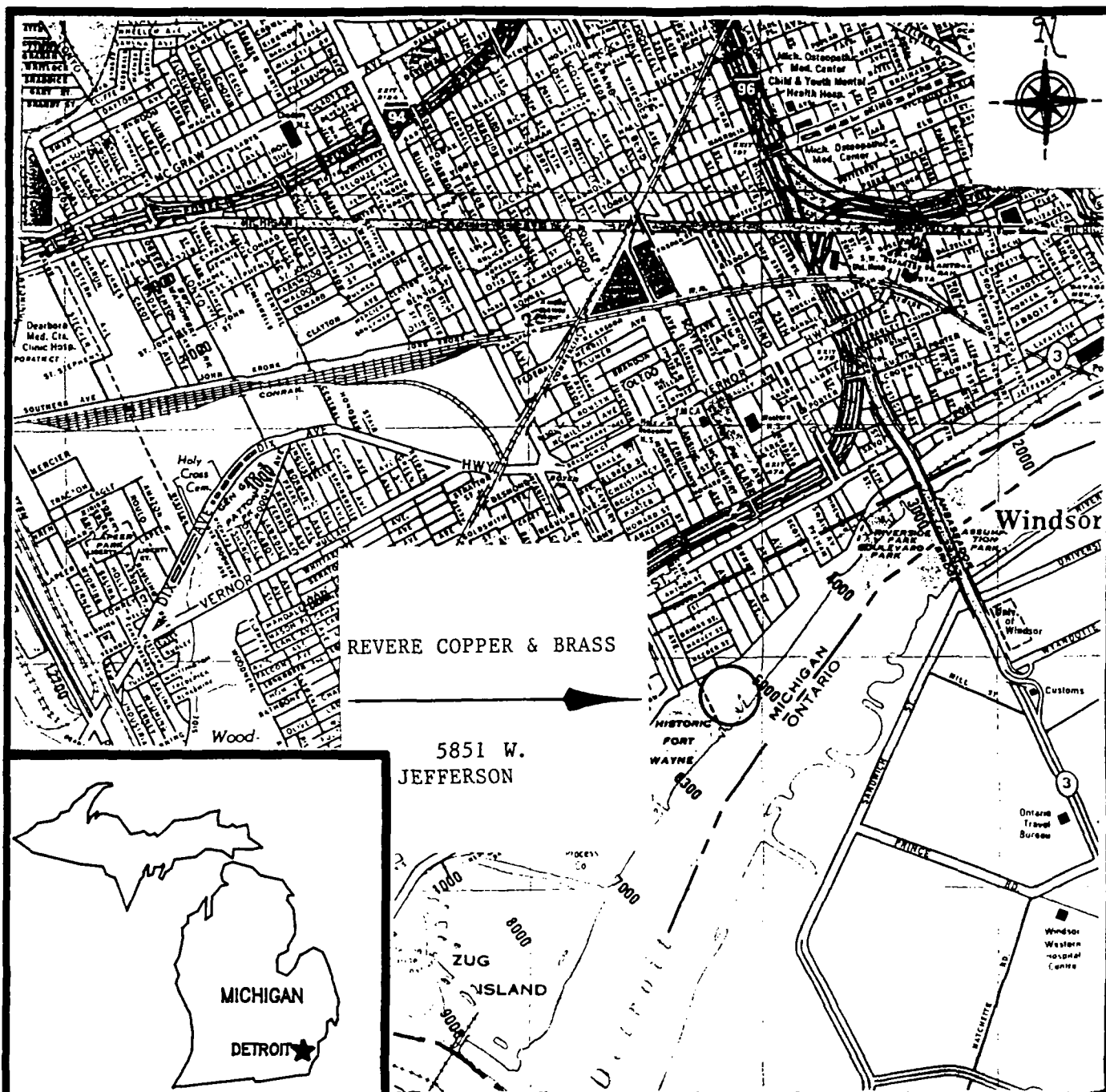


FIGURE 1
SITE LOCATION MAP
REVERE COPPER AND BRASS
DETROIT, MICHIGAN

NOT TO SCALE

WESTON

DRAWN BY M. TURNBULL	DATE 11-17-87	PCS # 1339
APPROVED J. BINKLEY	DATE 1-18-88	TDD # 5-8709-08

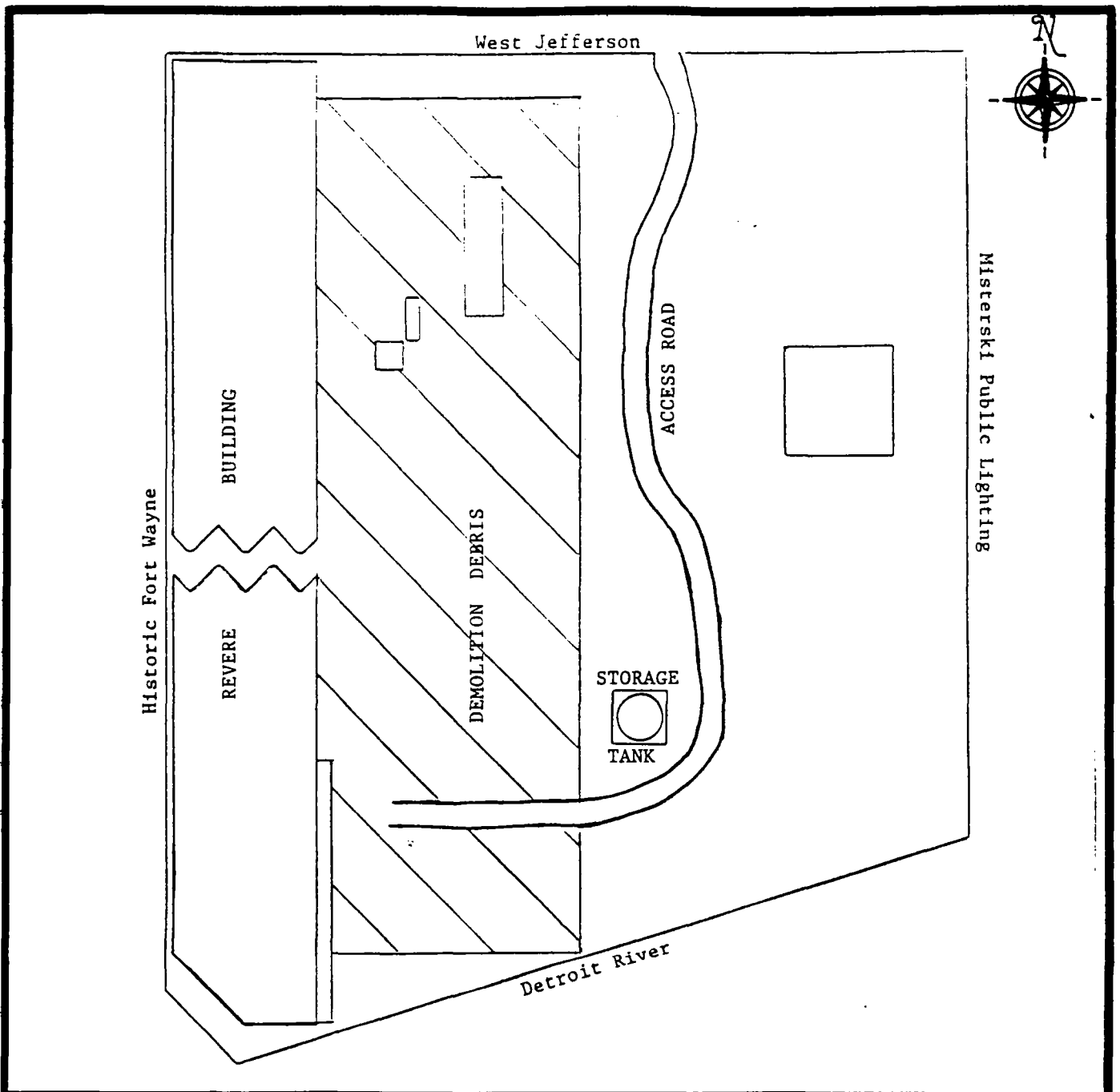


FIGURE 2
SITE MAP
REVERE COPPER AND BRASS
DETROIT, MICHIGAN

NOT TO SCALE

WESTON

DRAWN BY M. TURNBULL	DATE 11-17-87	PCS # 1339
APPROVED J. BINKLEY	DATE 1-18-88	TDD # 5-8709-08

ground levels were detected, as monitored by the photoionization detector, combustible gas indicator, and radiation meter. Inside the building, there were numerous equipment mounting pits which contained water, oil, and various solid waste materials. Several areas where suspected asbestos pipe wrapping was present were identified. Inside the building, an individual was removing metal from the building's support system with a cutting torch. In addition, the TAT documented several sport fishermen on the RCB property waterfront.

On November 5, 1987 TAT members Tim Ott and Dan Capone met U.S. EPA On-Scene Coordinator (OSC) Peter Neithercut at the site to collect samples from inside the building. Liquid samples R1 through R6 were collected from various pits and trenches, which were the lowest areas in the building, and appeared to contain most of the floor run-off of oily materials. Inside the building a block of approximately twelve capacitors (approximate volume: 2 gallons/capacitor) was discovered mounted on the wall of an equipment pit. A punctured capacitor was located on the floor above the equipment pit. A soil sample (R7) was collected from the area beneath the punctured capacitor (Figure 3). The samples were analyzed for PCBs under TAT analytical services TDD# 5-8709-L5 by Thermo Analytical, Inc.

4.0 ANALYTICAL RESULTS

The PCB analytical results are summarized in Table 1. All of the liquid samples (R1-R6) were below 6.0 parts per million (ppm). The soil sample (R7) collected directly beneath the punctured capacitor, had an extremely high concentration of Arochlor 1242 (160,000 ppm). The National PCB Spill Clean-up Policy (52FR10680) states that soils contaminated by PCBs greater than 500 ppm are required to be removed until a clean-up level of either 10 ppm or 25 ppm is obtained, dependent upon the spill location.

5.0 THREATS TO HUMAN HEALTH AND THE ENVIRONMENT

Paragraph (b) (2) of Part 300.65 of the National Contingency Plan outlines conditions which may be considered in determining the appropriateness of a removal action. Of these conditions, two exist at the RCB site, and will be elaborated on in the following subsections:

- o actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals, or the food chain; and,

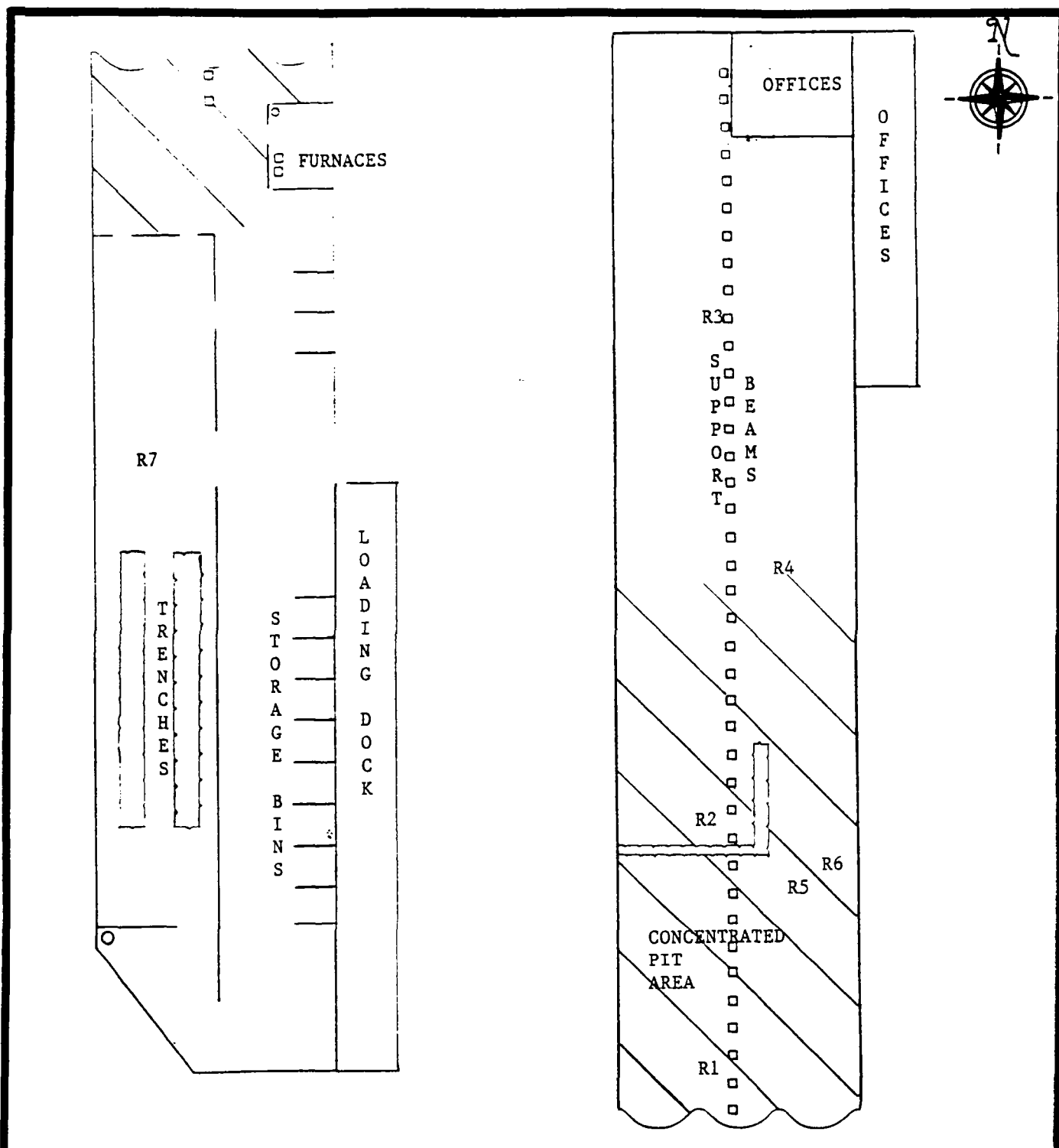


FIGURE 3
 SAMPLING LOCATION MAP
 REVERE COPPER AND BRASS
 DETROIT, MICHIGAN

NOT TO SCALE

WESTON

DRAWN BY M. TURNBULL	DATE 11-17-87	PCS # 1339
APPROVED J. BINKLEY	DATE 1-18-88	TDD # 5-8709-08

TABLE 1
ANALYTICAL RESULTS OF TAT SAMPLING
REVERE COPPER AND BRASS*
NOVEMBER 5, 1987

<u>Sample Location</u>	<u>Matrix</u>	<u>Contaminant</u>	<u>Concentration (ppm)</u>
R1	Aqueous		<4.0
R2	 --- \\/ Soil	Arochlor 1242	5.2
R3			<4.0
R4			<2.0
R5			<2.0
R6		Arochlor 1260	5.8
R7		Arochlor 1242	160,000

*Samples Analyzed by Thermo Analytical, Inc.

- o high levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.

5.1 Actual or Potential Exposure to Hazardous Substances

Access to the RCB site is not restricted. The TAT observed extensive evidence of past scrap removal inside the building. On both occasions that the TAT visited the site, individuals were observed removing scrap metal. A common practice of salvagers is to open capacitors to recover the contained copper resulting in their direct exposure to the PCB dielectric fluid. The exposure of these individuals to the PCB contamination inside the building is highly probable.

5.2 Threat of Migration

Due to the site's proximity to the Detroit River, the potential exists for PCB contamination to migrate off-site into the river, exposing aquatic life and food chains. Sport fisherman observed during the SA could be potentially exposed to PCBs via the consumption of contaminated fish.

5.3 Specific Chemical Threats

There is significant documentation of the health effects of PCB exposure, as well as the tendency of PCBs to bioaccumulate in the environment at low levels. PCBs are probable carcinogens, and toxic effects of direct contact include: chloracne; pigmentation of skin and nails; excessive eye discharge; swelling of eyelids; and, gastro-intestinal disturbances.

6.0 RECOMMENDATIONS

Because the documented PCB contamination is limited at RCB the TAT does not recommend a removal action conducted by U.S. EPA at this time. However, the current owner of the site (City of Detroit CEDD) should be notified of both the PCB contamination and potential for further releases. CEDD should be held responsible for removing all capacitors, and performing an effective cleanup of the contaminated area. The National PCB Spill Cleanup Policy should be used as the appropriate clean-up standard. The CEDD should also conduct a more extensive assessment of the building to assure that no additional capacitors are present on-site. In addition, the suspected asbestos problem should be referred to the Regional Air Pollution Control Agency to confirm the presence of asbestos and take appropriate actions. If the City of Detroit CEDD is unwilling or unable to take responsibility for a removal action, the TAT recommends that the site be referred to the Michigan Department of Natural Resources for further action under Michigan Act 307.

ATTACHMENT A

PHOTOGRAPHS



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 1 DIRECTION: SW TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: FRONT OF REVERE BUILDING ON W. JEFFERSON



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 2 DIRECTION: S TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: FRONT OF REVERE PROPERTY ON W. JEFFERSON



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 3 DIRECTION: W TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL
 SUBJECT: MID-SECTION OF REVERE BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 4 DIRECTION: SW TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL
 SUBJECT: REAR SECTION OF REVERE BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 5 DIRECTION: NW TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: REVERE BUILDING FROM WATERFRONT



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 6 DIRECTION: SW TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: REVERE BUILDING ON WATERFRONT



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 7 DIRECTION: W TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT TJO WITNESS: M. TURNBULL

SUBJECT: REVERE BUILDING ON WATERFRONT



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 8 DIRECTION: E TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT TJO WITNESS: M. TURNBULL

SUBJECT: OUTSIDE PIT NEAR BUILDING MIDSECTION.



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 9 DIRECTION: W TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL
 SUBJECT: DRUMS NEAR BUILDING'S MIDSECTION



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 10 DIRECTION: N TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL
 SUBJECT: HEATING/COOLING TANK NEAR BUILDING'S MIDSECTION



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 11 DIRECTION: S TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 780 WITNESS: M. TURNBULL

SUBJECT: DEMOLITION MATERIAL NEAR BUILDING'S MIDSECTION



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 12 DIRECTION: S TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 780 WITNESS: M. TURNBULL

SUBJECT: ABANDONED MACHINERY NEAR BUILDING'S MIDSECTION



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 13 DIRECTION: SE TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 780 WITNESS: M. TURNBULL
 SUBJECT: DEMOLISHED BUILDING/SPORT FISHERMEN'S CARS



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 14 DIRECTION: N TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 780 WITNESS: M. TURNBULL
 SUBJECT: WATER AND OIL TANK NEAR MIDSECTION



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 15 DIRECTION: N TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 780 WITNESS: M. TURNBULL

SUBJECT: STORAGE BINS IN REAR OF BUILDING - EAST WALL



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 16 DIRECTION: E TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 780 WITNESS: M. TURNBULL

SUBJECT: DRUMS/WASTE IN A STORAGE BIN



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 17 DIRECTION: W TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: MACHINERY PIT OUTSIDE STORAGE BIN



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 18 DIRECTION: W TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: DRUM ALONG SOUTHWEST WALL



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 19 DIRECTION: N TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 780 WITNESS: M. TURNBULL
 SUBJECT: MACHINERY PIT IN REAR OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 20 DIRECTION: W TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 780 WITNESS: M. TURNBULL
 SUBJECT: FALLEN ASBESTOS PIPE WRAP IN REAR OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 21 DIRECTION: N TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 780 WITNESS: M. TURNBULL

SUBJECT: MACHINERY PIT IN MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 22 DIRECTION: DOWN TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 780 WITNESS: M. TURNBULL

SUBJECT: SEWER IN MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 23 DIRECTION: UP TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: SUSPENDED STORAGE TANK IN MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 24 DIRECTION: SW TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL

SUBJECT: FURNACES IN MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 25 DIRECTION: W TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT *780* WITNESS: M. TURNBULL

SUBJECT: ASBESTOS PIPE WRAP IN FURNACE PIT



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 26 DIRECTION: N TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT *780* WITNESS: M. TURNBULL

SUBJECT: FALLEN SECTION OF ROOF IN MIDDLE OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 27 DIRECTION: N TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 780 WITNESS: M. TURNBULL

SUBJECT: ASBESTOS PIPE WRAP IN MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 28 DIRECTION: N TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT 780 WITNESS: M. TURNBULL

SUBJECT: MACHINERY PIT IN MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
PHOTOGRAPH NUMBER: 29 DIRECTION: N TIME: PM
CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
PHOTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL
SUBJECT: MACHINERY PIT IN MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
PHOTOGRAPH NUMBER: 30 DIRECTION: E TIME: PM
CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
PHOTOGRAPHER: T. OTT 710 WITNESS: M. TURNBULL
SUBJECT: MACHINERY TRENCH IN MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 31 DIRECTION: E TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 70 WITNESS: M. TURNBULL
 SUBJECT: BROKEN FOUNDATION IN MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 32 DIRECTION: N TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 70 WITNESS: M. TURNBULL
 SUBJECT: PANORAMIC VIEW OF FRONT SECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 33 DIRECTION: NW TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL
 SUBJECT: PANORAMIC VIEW OF FRONT SECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87
 PHOTOGRAPH NUMBER: 34 DIRECTION: SW TIME: PM
 CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123
 PHOTOGRAPHER: T. OTT 7/0 WITNESS: M. TURNBULL
 SUBJECT: PANORAMIC VIEW OF MIDSECTION OF BUILDING



SITE: REVERE COPPER AND BRASS DETROIT, MICH DATE: 9/17/87

PHOTOGRAPH NUMBER: 35 DIRECTION: S TIME: PM

CAMERA: OLYMPUS INFINITY SERIAL NUMBER 1217123

PHOTOGRAPHER: T. OTT *7/0* WITNESS: M. TURNBULL

SUBJECT: PANORAMIC VIEW OF FRONT SECTION OF BUILDING